

## Oil, Gas & Geothermal Operations

DOC safeguards California's residents, environment and energy resources by regulating the 180,000 oil, gas and geothermal wells that have been drilled in the state. California is the fourth-largest oil producer in the nation.

DOC's **Division of Oil, Gas, and Geothermal Resources (DOGGR)** has a vast amount of information about this industry, including well records, production and injection statistics, well logs and field maps. Much of this information can be found by visiting [www.conservation.ca.gov](http://www.conservation.ca.gov).

DOGGR has field offices throughout the state and oversees the drilling, operating and plugging of oil, gas and geothermal wells to protect the environment and public safety.



Geothermal wells regulated by DOGGR include those at The Geysers field, where more geothermal electricity is produced than anywhere else in the world.

When no one is there to take responsibility for plugging and abandoning a well, the well is considered orphaned. In such cases, DOGGR ensures that the well is plugged properly.

DOGGR also assists in restoring land that contains old oil and gas wells. For example, in Kern and Los Angeles counties, beautiful homes are being built over old wells. DOGGR's Well Reabandonment Program ensures that old wells -- some of which date to the late 1800s -- are plugged to current standards.

## Surface Mining And Reclamation

The **Office of Mine Reclamation (OMR)** was created in 1991 to administer the Surface Mining and Reclamation Act (**SMARA**), which protects public safety and the environment. OMR provides advice, information, assistance and oversight to local governments, state agencies and mine operators for reclamation planning and promotes cost-effective reclamation.

Every mining operation that removes more than 1,000 cubic yards of material or disturbs more than one acre must have: 1) a permit to mine; 2) an approved reclamation plan that shows how the land will be restored when mining is complete; and 3) proof of financial ability to ensure reclamation.

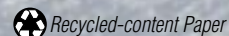
SMARA's reclamation requirements apply to all surface mining operations in the state, including those on federally managed lands. Currently there are about 1,400 reporting active surface mines -- mainly construction aggregate -- in the state.

OMR's Abandoned Mine Lands Unit estimates there are nearly 47,000 historic abandoned mines in the state, many of which pose health and safety risks. Working with its many partner agencies, the program inventories and remediates mines that predate SMARA.

Along with OMR, the State Mining and Geology Board ensures proper administration of SMARA. The Board creates regulations to clarify and interpret SMARA's provisions, and also serves as a policy and appeals body.



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## CALIFORNIA Department of Conservation

- Beverage Container Recycling
- Agricultural Land Protection
- Earthquakes, Geology & Minerals
- Oil, Gas & Geothermal Operations
- Surface Mining and Reclamation



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## About the Department of Conservation

*The Department of Conservation (DOC) administers a variety of programs vital to California's public safety, environment and economy. Our services - including oversight, mapping, classification and consultation -- are designed to foster the wise use and conservation of energy, land and mineral resources. Here's a closer look at what the DOC offers:*

### Beverage Container Recycling



By recycling glass, plastic and aluminum beverage containers, Californians reduce litter while saving energy, natural resources and landfill space. Through its **Division of Recycling**, the DOC promotes bottle and can recycling through education and outreach to beverage retailers, consumers and recycling centers.

Californians bought more than 21.9 billion beverages in aluminum, glass and plastic containers in 2007. More than 14.7 billion of those containers were redeemed for California Refund Value (**CRV**) and recycled, saving natural resources, conserving energy and extending the life of our landfills.

DOC spokesdinosaur Recycle Rex teaches children to "Recycle, reduce, reuse and close the loop" at public appearances throughout the state.

To find a nearby recycling center or ask questions about the program, call **1-800-RECYCLE** or **bottlesandcans.com**



## Agricultural Land Protection

Californians make their homes amidst some of the most productive farmland and diverse open spaces in the world. The DOC's **Division of Land Resource Protection (DLRP)** provides information to guide land-use planning decisions and programs that allow landowners to protect their agricultural and open-space land.

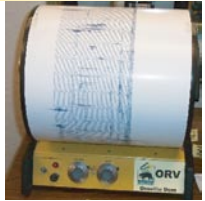
DLRP administers or supports several programs designed to promote orderly growth in coordination with agricultural endeavors. This is a crucial job: The population of California is expected to grow from its current 36.5 million to 50 million by 2025, and the need for new homes will put strain on the nation's leading agricultural economy. Key tools available for land conservation planning are:

- The Williamson Act provides tax incentives for landowners who keep parcels in agricultural or open-space use under 10-year contracts. The law has been widely credited with discouraging leapfrog development.
- The California Farmland Conservancy Program provides state grants that are used to purchase permanent conservation easements. This program complements the Williamson Act by focusing on farmland where long-term development pressures overwhelm tax incentives.
- Through the Farmland Mapping and Monitoring Program, DLRP tracks conversion of farmland to other uses and provides the information to local officials as a tool to help with planning decisions.
- DLRP administers grants and provides technical assistance for the 103 local resource conservation districts in the state.



## Earthquakes, Geology & Minerals

Planners, developers, engineers, and property owners rely on DOC's **California Geological Survey (CGS)** for clear, unbiased reports and maps of California's geologic hazards and resources. CGS provides technical information, advice, and recommendations regarding geologic processes so that local and state agencies can make better land-use and development decisions.



CGS reviews Timber Harvest Plans, the location of schools and hospitals, and assists state agencies in projects to help reduce the potential for landslides, erosion, and sedimentation to protect public safety and the environment. CGS provides information about the location of valuable and hazardous minerals to ensure all facets of California's geologic environment are managed in a safe and resourceful way.

Recognizing California is earthquake country, through an integrated effort, CGS identifies and evaluates seismic hazards, and issues regulatory maps and building code enhancements that reduce the loss of life and property caused by earthquakes. Following an earthquake, CGS' information on strong ground shaking and ground failures helps guide emergency response professionals to areas of high damage and risk.

The Strong Motion Instrumentation Program (SMIP) obtains vital earthquake data for the engineering and scientific communities through a statewide network of more than 1,000 instruments, including some on bridges, dams and other structures. Engineers use the data to design and build safer, more earthquake resilient structures.

CGS prepares maps of earthquake hazard zones under the 1972 Alquist-Priolo Earthquake Fault Zones Act and the 1990 Seismic Hazards Mapping Act. These acts require CGS to designate regulatory zones encompassing active faults, and areas prone to landslides and liquefaction (settlement of soft water-saturated soils). Earthquake hazard zones maps assist local agencies in planning and building earthquake resistant communities.